

BY ORDER OF THE COMMANDER
314TH AIRLIFT WING (AETC)

314TH AIRLIFT WING INSTRUCTION 21-102

8 FEBRUARY 2013



Maintenance

FUNCTIONAL CHECK FLIGHT PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Colonel Steven M. Weld)

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This instruction applies to all 314th Airlift Wing organizations assigned or attached to Little Rock AFB, AR. This instruction does not apply to the 19th Airlift Wing or Air National Guard. This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*. This establishes policy, assigns responsibility, and outlines procedures for preparing aircraft assigned to the 314th Airlift Wing for functional and acceptance check flights (CF) as well as high speed taxi checks (HSTC). The 314th Operations Group (OG) Commander, Standardization Evaluation officer in charge of functional check flights (FCFs), quality assurance (QA) functional check flight personnel, and maintenance supervisors at all levels will ensure compliance with this instruction. The use of name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. References: AFI 21-101, *Maintenance Management of Aircraft*, AFI 21-101 AETCSUP1, *Aerospace Equipment Maintenance Management*. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual 33-363, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847 from the field through the appropriate functional managers chain of command.

SUMMARY OF CHANGES

This publication has been reviewed IAW AFI 21-101 para. 8.3.4. Minor changes were made throughout the publication to update the reference from FCF to CF/HSTCs. Additional

formatting changes were made to paragraph 7. This publication supersedes 314 AWI 21-102, 04 November 2009.

1. Functional Check Flight (FCF). FCFs to include check flights (CF), functional check flights (FCF), operational check flights (OCF), high speed taxi checks (HSTC) are performed to ensure aircraft are safe for flight and capable of performing assigned missions. However, CFs are not flown when the airworthiness of the aircraft can be determined by maintenance operational checks prescribed by a technical directive.

2. Maintenance Responsibilities. The aircraft maintenance unit will ensure the following steps are completed:

2.1. Ensure all aircraft systems are fully operational or that known discrepancies will not affect the CF profile.

2.2. Coordinate fuel load and cargo compartment configuration requirements then refuel/configure the aircraft according to aircrew request. To minimize brake and tire wear while performing HSTC, coordinate with the FCF aircrew to ensure the aircraft is configured with the minimum operational fuel requirements. Ensure aircraft is prepared for flight and the Exceptional/Conditional release is signed off.

2.3. Prepare aircraft AFTO Form 781, *Aircrew/Mission Flight Data Document*, series binder for review by QA. Ensure all AFTO Forms 781A, *Maintenance Discrepancy and Work Document*, since last flight, to include the original discrepancy, are delivered to QA for review no later than 3 hours prior to aircrew briefing on the day of the CF or HSTC.

3. Quality Assurance Responsibilities. Upon notification of a CF or HSTC requirement, the following steps will be taken:

3.1. Review the aircraft forms for maintenance accuracy and completed documentation. Prepare a concise statement of the reason for the CF or HSTC to be included in the discrepancy block of AFTO Form 781A. Place a blue border around the entire page and stamp the top with CF worksheet stamp.

3.2. Insert the blue-bordered AFTO Form 781A CF worksheet in front of the of the AFTO Form 781A note page of the active forms and have the highlighted checklist ready for the aircrew briefing.

3.3. Develop an aircrew briefing checklist specifically for HSTCs IAW T.O. 1-1-300, *Acceptance/Functional Check Flt and Maintenance Operational Checks*.

3.4. On the day of the CF or HSTC, review all aircraft forms since last flight and verify aircraft status by calling the Maintenance Operations Center. Coordinate with the aircraft maintenance unit to load a job control number in G081. All CFs will use the following job control numbers: 8400-8449 as per LRAFB 21-107, *Job Control Number Assignment*.

3.5. Call applicable flying squadrons' operations desks to notify the aircrew that the aircraft and forms are ready for briefing and determine briefing location.

3.6. Brief aircrew of the reason for the CF or HSTC and annotate the briefing in the next open block on the AF Form 2400, *Functional Check Flight*, or equivalent, Functional Check Flight Log. Ensure the aircrew is briefed on the purpose and extent of the CF/HSTC as well

as previous maintenance problems and discrepancies recorded on the aircraft or engines related to the CF/HSTC.

4. Aircrew Responsibilities. The CF/HSTC will be accomplished using the information contained in the FCF Information Handbook containing Technical Order (TO) 1-1-300, TO 1C-130E(H)-6CF-1, *Acceptance and Functional Check Flight Manual*, 1C-130E(H)-6CL-1, *Acceptance and or Functional Check Flight Checklist*, and 1C-130J-6CF-1, *Acceptance or Functional Check Flight Procedures*.

4.1. The aircraft commander will review the aircraft forms and applicable CF/HSTC TO and sign the log sheet to signify he/she has reviewed the FCF Read File. The aircraft commander will brief the aircrew on issues concerning the FCF Read File.

4.2. Enter only CF/HSTC related discrepancies on the blue-bordered AFTO Form 781A. Discrepancies not CF/HSTC related are placed in the regular AFTO Forms 781A.

4.3. The aircraft commander will annotate and complete the appropriate blocks on the completed applicable CF/HSTC checklist, AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance Document*, and blue-bordered AFTO Form 781A with the time and date the CF/HSTC was completed.

5. Off-Station CF/HSTC Procedures:

5.1. The Temporary Duty (TDY) maintenance personnel will notify home station to verify the CF/HSTC requirement.

5.2. The local (TDY location) QA will review all maintenance actions prior to CF/HSTC. If no local QA exists then the TDY maintenance personnel will contact home-station QA for guidance and instructions and to review all maintenance actions prior to CF/HSTC.

5.3. If the Mission Design Series aircraft is not assigned at the transient base, then the owning unit must provide a qualified CF/HSTC pilot/crew and maintenance as required.

5.4. The TDY maintenance personnel will contact the transient base flight operations unit and home-station to determine CF/HSTC pilot/crew availability/scheduling.

6. CF/HSTC Attempt/Release: The following steps will be accomplished:

6.1. Upon completion of each CF/HSTC attempt/release, the QA technician will debrief the aircrew at the applicable maintenance debrief section and retrieve the applicable CF/HSTC checklist. The QA technician will sign off the CF/HSTC in G081 using his/her employee number for the aircrew.

6.2. When the CF/HSTC aircraft is released, QA will complete all documentation on the AF Form 2400 or equivalent; or a computer automated FCF Log as required.

6.3. QA will move the blue-bordered page from in front the AFTO Forms 781A to the last page and re-number it accordingly. QA will deliver the CF/HSTC completed checklist to the 314th Maintenance Operations Flight Plans, Scheduling, and Documentation section to be filed in the aircraft jacket file.

6.4. If the aircraft fails the CF/HSTC and is not released, QA will move the blue-bordered page from in front the AFTO Forms 781A to the last page and re-number it accordingly.

7. Information Collections, Records, and Forms:

7.1. Forms Prescribed: No Forms or Information Management Tools (IMT) prescribed by this publication.

7.2. Forms or IMTs Adopted. AFTO Form 781 Series, *Maintenance Discrepancy and Work Document*; AF Form 2400, *Functional Check Flight Log*; and AF Form 847, *Recommendation for Change of Publication*.

EDWARD S. BREWER, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21-101, *Aerospace Equipment Maintenance Management*, 26 Jul 2010
AFI 21-101 AETCSUP1, *Aerospace Equipment Maintenance Management*, 21 Oct 2010
AFI 21-103, *Equipment Inventory, Status and Utilization Reporting*, 26 Jan 2012
AFMAN 33-363, *Management of Records*, 1 Mar 2008
TO 1-1-300, *Acceptance/Functional Check Flt and Maintenance Operational Checks*, 15 Mar 2012
TO 1C-130E(H)-6CF-1, *Acceptance and Functional Check Flight Manual*, 31 Dec 2005
TO 1C-130E(H)-6CL-1, *Acceptance and or Functional Check Flight Checklist*, 31 Dec 2005
TO 1C-130J-6CF-1, *Acceptance or Functional Check Flight Procedures*, 1 Jul 2012

Prescribed Forms

No Forms or Information Management Tools (IMT) prescribed by this publication.

Adopted Forms

AFTO Form 781 Series, *Maintenance Discrepancy and Work Document*
AF Form 2400, *Functional Check Flight Log*
AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFI—Air Force Instruction
AFPD—Air Force Policy Directive
CF—Check Flight
FCF—Functional Check Flight
HSTC—High Speed Taxi Check
IAW—In Accordance With
IMT—Information Management Tool
JCN—Job Control Number
MXG—Maintenance Group
OCF—Operational Check Flight
OG—Operations Group
QA—Quality Assurance
TO—Technical Order